SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

DRAFT

2003 COACHELLA VALLEY PM10 STATE IMPLEMENTATION PLAN

(A Revision to the 2002 Coachella Valley PM10 State Implementation Plan)

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LIST OF ACRONYMS AND ABBREVIATIONS

APCD	Air Pollution Control District
AQMD	South Coast Air Quality Management District
AQMP	Air Quality Management Plan
BACM	Best Available Control Measure
Basin	South Coast Air Basin
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CVAG	Coachella Valley Association of Governments
CVSIP	Coachella Valley PM10 State Implementation Plan
MSM	Most Stringent Measure
MSRC	Mobile Source Air Pollution Reduction Review Committee
NAAQS	National Ambient Air Quality Standards
NEP	Natural Events Policy
NEAP	Natural Events Action Plan
PM10	Particulate Matter with Aerodynamic Diameter less than 10 Microns
RACM	Reasonably Available Control Measure
SIP	State Implementation Plan
U.S. EPA	U.S. Environmental Protection Agency

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EXECUTIVE SUMMARY

INTRODUCTION

This executive summary includes:

- ✓ Background information about recent PM10 air quality in the Coachella Valley and pertinent regulatory background;
- ✓ Purpose of the 2003 Coachella Valley PM10 State Implementation Plan (2003 CVSIP).

AIR QUALITY AND REGULATORY BACKGROUND

The South Coast Air Quality Management District (AQMD) is the local agency responsible for air quality assessment and improvement in the Coachella Valley. The Coachella Valley is the desert portion of Riverside County in the Salton Sea Air Basin. The Coachella Valley and the AQMD have a demonstrated history of adopting and implementing PM10 dust controls (e.g., 1990 CVSIP, 1994 BACM SIP, AQMD Rules 403 and 403.1, local dust control ordinances, clean streets management program) to ensure healthful air for local residents and tourists. These efforts are summarized in the 1996 Coachella Valley PM10 Redesignation Request and Maintenance Plan (1996 CV Plan). U.S. EPA SIP-approved the Coachella Valley's local dust control ordinances and AQMD's fugitive dust rules, effective January 8, 1999. The attainment date for serious non-attainment areas to achieve the PM10 NAAQS was 2001. After years of demonstrating attainment of the PM10 standards, PM10 levels in 1999 through 2001 did not demonstrate attainment of the annual average PM10 National Ambient Air Quality Standards (NAAQS). For reference, Coachella Valley has attained the 24-hour PM10 standard since 1993.

When it became apparent that the Coachella Valley would not be able to continue to demonstrate attainment of the PM10 NAAQS by 2001, AQMD staff, in conjunction with local Coachella Valley jurisdictions, agencies, and stakeholders prepared the 2002 CVSIP. The 2002 CVSIP included control program enhancements that met the Most Stringent Measure (MSM) requirements and CAA requirements for an extension of the PM10 attainment date to 2006. Local assistance with 2002 CVSIP preparation was also provided by the Coachella Valley Air Quality Ad Hoc Task Force. The 2002 CVSIP was adopted by the AQMD Governing Board on June 21, 2002. It was adopted by CVAG's Executive Committee on June 25, 2002. After comments by U.S. EPA, the AQMD Governing Board adopted the 2002 CVSIP Addendum on September 12, 2002, which detailed the 2003 milestone year target and emission budgets. U.S. EPA proposed approval of the 2002 CVSIP on December 17, 2002, and final approval occurred on April 18, 2003 (67 FR 77206-77211). AQMD and CVAG staff are currently working on implementing the 2002 CVSIP.

PURPOSE OF THE 2003 CVSIP

At the time of the 2002 CVSIP development, CARB had not completed its update of its motor vehicle emissions model. As part of the June 21, 2002 adopting resolution, AQMD Governing Board directed the Executive Officer to update the 2002 CVSIP, including emissions budgets in 2003, using the latest approved motor vehicle emissions model and planning assumptions. It also requested that the U.S. EPA

approve the emissions budgets based on the 2002 CVSIP for use only until the U.S. EPA finds adequate the revised budgets in the 2003 revision to the 2002 CVSIP.

The 2003 CVSIP updates the 2002 CVSIP emissions inventories, transportation mobile source budgets, and attainment demonstration with the latest approved motor vehicle emissions model (i.e., EMFAC2002) and planning assumptions. AQMD is requesting that CARB and U.S. EPA approve the following 2003 CVSIP revisions to the corresponding elements of the 2002 CVSIP:

- Base year and future baseline PM10 emissions inventories (c.f. Tables 2-2 through 2-5)
- Emission reduction commitment for the attainment year 2006 (c.f. Table 2-6)
- Future controlled PM10 emissions inventories for 2006 (c.f. Tables 2-7)
- Transportation conformity emission budget (c.f. Table 2-8)
- Interim milestone year targets and transportation conformity emission budget for the end of year 2003 (c.f. Tables 2-9 and 2-10, respectively)
- Attainment demonstration for 2006 (c.f. Table 3-2)
- Conformity scenario attainment demonstration (c.f. Tables 3-3)

Other elements of the 2002 CVSIP remain the same, e.g., the Most Stringent Measures analysis, the Coachella Valley control and contingency measures, and the Natural Event Action Plan.

The following summarizes the highlights of each chapter of the 2003 CVSIP:

Chapter 1: Background Information
The introduction describes the purpose of the 2003 CVSIP, brief background information on the Coachella Valley, 2002 PM10 levels, a brief summary of the 1990, 1994, 1996 and 2002 Coachella Valley plans, and 2002 CVSIP implementation.

Chapter 2: Emission Inventory Update
2002 CVSIP emissions in most categories have been updated based on the latest emission inventory methodologies. Mobile source emissions are based on latest CARB-approved motor vehicle emissions model and planning assumptions. Future growth is based on the latest projections and planning assumptions. Future year baseline and controlled emissions are presented for 2006 (attainment year), as well as 2003 (reasonable further progress milestone year). The chapter also includes emission budgets for use in transportation conformity determinations.

Chapter 3: Attainment Demonstration Update
This chapter contains the modeling attainment demonstration, based on the 2002 CVSIP control strategy.

Chapter 4: 2002 CVSIP Implementation Summary and 2003 CVSIP Approval Request
This chapter provides a summary of the implementation of the 2002 CVSIP and checklist of 2003 CVSIP elements to be forwarded to CARB and U.S. EPA for review and approval.

CHAPTER 1

BACKGROUND INFORMATION

INTRODUCTION

This chapter discusses the following:

- ✓ The purpose and regulatory background of this plan;
- ✓ The Coachella Valley area;
- ✓ 2002 PM10 measurements
- ✓ Previous Coachella Valley SIPs, plans and dust regulations; and
- ✓ 2002 CVSIP implementation.

PURPOSE AND REGULATORY BACKGROUND

The Coachella Valley is currently designated as a serious non-attainment area for PM10. The AQMD is the air agency responsible for air quality planning and regulations in the Coachella Valley (Health and Safety Code §§ 40410, 40413). Since it was designated as a PM10 non-attainment area, Coachella Valley governments, agencies, private and public stakeholders, along with the AQMD, have proactively worked to reduce unhealthful levels of PM10 dust. These efforts are detailed in the 1990 SIP for PM10 in the Coachella Valley (1990 CVSIP), the 1994 BACM Revision of the 1990 CVSIP (1994 BACM CVSIP), and the 1996 Coachella Valley PM10 Attainment Redesignation Request and Maintenance Plan (1996 CV Plan). As noted in the 1996 CV Plan, local and AQMD dust control efforts were so successful that Coachella Valley became the first serious non-attainment area in the nation to request redesignation. The local dust control ordinances and AQMD's fugitive dust rules 403 and 403.1 were SIP-approved by U.S. EPA on January 8, 1999 (cf. 63 FR 67784-67787, dated December 9, 1998). The AQMD has invoked the U.S. EPA's Natural Events Policy (NEP) to identify high PM10 days that resulted from high-wind natural events. These days are not used in determining the 24-hour or annual average PM10 levels. Based on monitoring data and the NEP, the Coachella Valley demonstrated attainment of the annual average PM10 NAAQS (expected annual average mean for past three years) for each year from 1995 through 1999. It has demonstrated attainment of the 24-hour PM10 NAAQS from 1993 through 2002.

In 1999, annual average PM10 levels jumped up to 52.7 $\mu g/m^3$, significantly above levels seen in previous years. (PM10 levels all reflect removal of natural events, if any.) An improving economy had resulted in greater development, particularly of large resorts and recreational areas, and the area had suffered a number of dry years. After a series of AQMD enforcement actions at these large developments, the AQMD began a program of greater enforcement and outreach to developers and builders, and local government dust plan review and enforcement staff. The expected annual average mean for 1999-2001 was 51.7 $\mu g/m^3$.

In response to this situation, the 2002 CVSIP was developed, including a Most Stringent Measures analysis and additional control measures. It was adopted by the AQMD Governing Board on June 21, 2002. It was adopted by CVAG's Executive Committee on June 25, 2002. After comments by U.S. EPA, the AQMD Governing Board adopted the 2002 CVSIP Addendum on September 12, 2002, which detailed the 2003 milestone year target and emission budgets. U.S. EPA approved the 2002 CVSIP on April 18, 2003 (67 FR 77206-77211). AQMD and CVAG staff are currently working on implementing the 2002 CVSIP.

At the time of the 2002 CVSIP, CARB had not completed its update of its motor vehicle emissions model. As part of the June 21, 2002 adopting resolution, AQMD Governing Board directed the Executive Officer to update the 2002 CVSIP, including emissions budgets in 2003, using the latest approved motor vehicle emissions model and planning assumptions. It also requested that the U.S. EPA approve the emissions budgets based on the 2002 CVSIP for use only until the U.S. EPA finds adequate the revised budgets for the same years submitted as part of the 2003 revision to the 2002 CVSIP.

THE COACHELLA VALLEY AREA

The Coachella Valley PM10 non-attainment area consists of an approximately 2,500 square mile portion of central Riverside County (see Figures 1-1 and 1-2). The Valley itself is within the newly created Salton Sea Air Basin (formerly Southeast Desert Air Basin) and is aligned in a northwest-southeast orientation stretching from Banning Pass to the Salton Sea. Geographically, the Valley is bounded by the San Jacinto Mountains to the west, and the Little San Bernardino Mountains to the east. Elevation ranges from approximately 500 feet above sea level in the northern part of the Valley to about 150 feet below sea level near the Salton Sea.

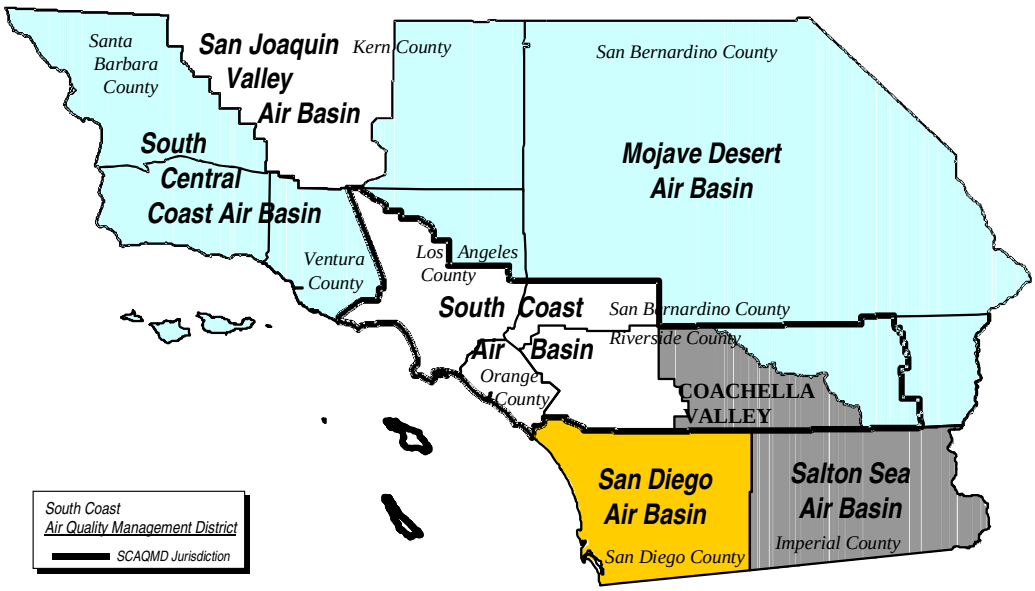

FIGURE 1-1

District, Air Basins, and Coachella Valley Area

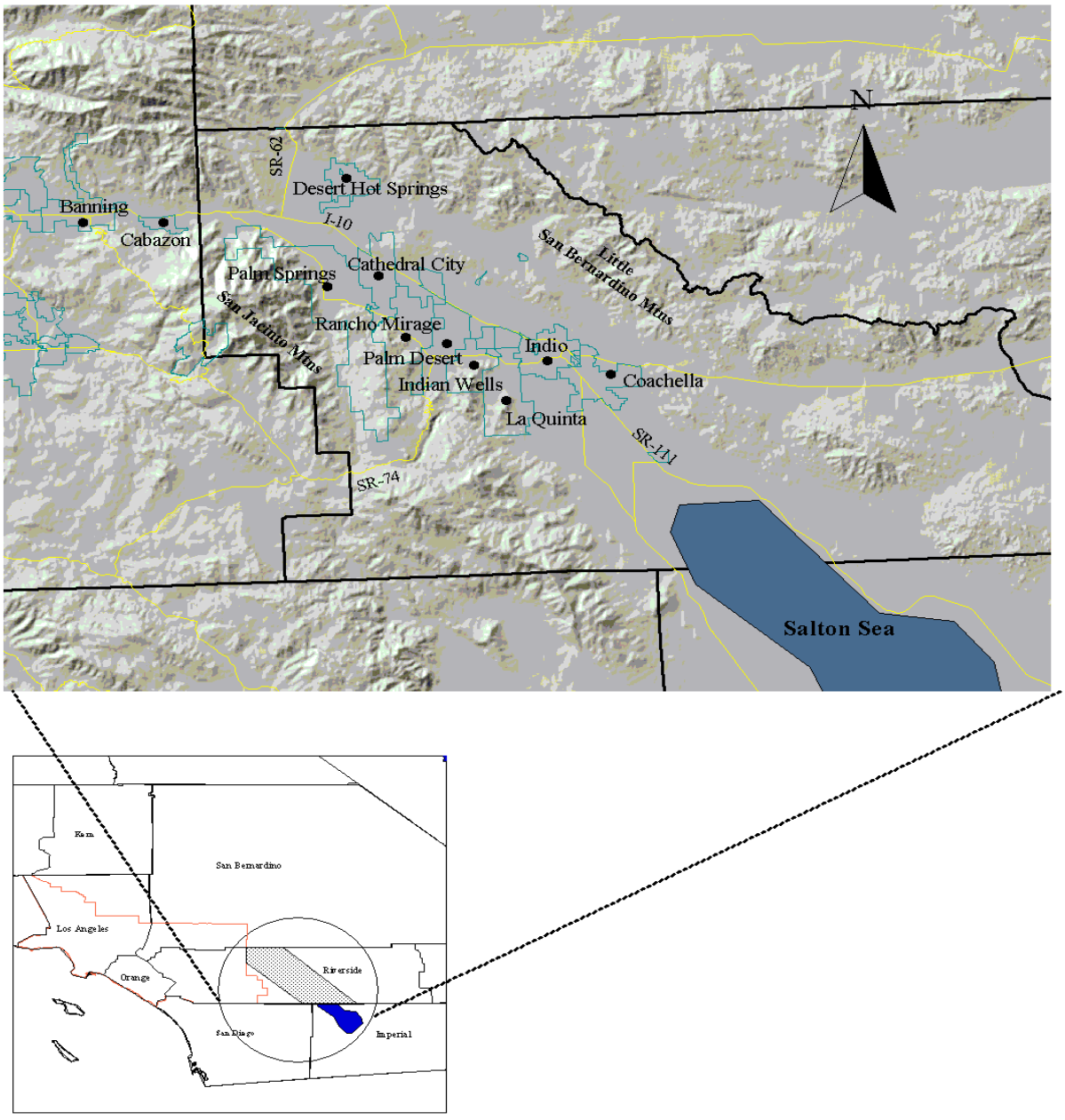

FIGURE 1-2

Coachella Valley Communities

LATEST PM10 AIR QUALITY

A more detailed description of the Valley's meteorology, climate, winds, and blowsand can be found in the first chapter of the 1990 CVSIP, 1994 CVSIP and the 1996 CV Plan, which are included by reference. PM10 continues to be sampled by means of size selective inlet high volume (SSI) samplers that collect airborne particles with diameter smaller than approximately 10 micrometers over a 24-hour period. The 2002 CVSIP describes the Coachella Valley's PM10 air quality from the early 1990s through 2001. Tables 1-1 through 1-3 summarize PM10 air quality metrics for the past years. Coachella Valley monitoring station 1 is in the Palm Springs area, which is more sheltered from high winds and is generally upwind of most valley fugitive dust sources. Coachella Valley monitoring station 2 is in the Indio area, in the eastern portion of the valley.

TABLE 1-1

Expected Annual Arithmetic Mean

Site/Year	Arithmetic Mean PM10 Concentration µg/m3					Expected
	Q1	Q2	Q3	Q4	AAMQM	AAM
Coachella Valley 1						
99	27.1	28.8	35.6	23.9	28.9	
00	16.9	25.0	28.6	26.9	24.4	
01	22.3	29.6	69.1	22.0	35.8	
01*	22.3	29.6	32.8	22.0	26.7	26.7*
02	22.3	31.2	30.6	24.5	27.2	25.6*
Coachella Valley 2						
99	54.6	48.9	59.5	47.7	52.7	
00	47.9	63.3	60.7	49.8	55.4	
00*	47.9	53.1*	56.6*	49.8	51.9*	
01	35.7	63.5	91.9	44.8	59.0	
01*	35.7	52.7*	67.9*	44.8	50.2*	51.6*
02	41.5	57.2	59.3	56.2	53.5	
02*	41.5	52.6*	59.3	48.9*	50.6*	51.0*

* Values after deletion of high-wind natural events.
Qn = arithmetic mean PM10 for nth calendar quarter.
AAMQM = annual arithmetic mean of quarterly means.
Expected AAM = expected annual arithmetic mean = average of three years AAMQM.

In summary, Tables 1-2 and 1-3 show the annual average mean and 3-year expected annual average mean PM10 for Coachella Valley 1 and 2, respectively, from 1995 through 2002. In Tables 1-2 and 1-3, an asterisk (*) denotes that at least one high-wind event has been excluded from the data according to the Natural Events Policy.

TABLE 1-2

Coachella Valley 1 Annual Average Mean (AAM) and Lagging 3-Year AAM PM10 in $\mu g/m^3$

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001***	**2002***
AAM	27.4	29.3	26.4	26.4	28.9	24.4	26.7	27.2
3-Year Average	27.4	28.1	27.7	27.4	27.2	26.5	26.7	25.6

TABLE 1-3

Coachella Valley 2 AAM and Lagging 3-Year AAM PM10 in $\mu g/m^3$

	1995*	**1996***	**1997***	**1998***	**1999**	**2000***	**2001***	**2002***
AAM	49.6	50.7	49.7	47.2	52.7	51.9	50.2	50.6
3-Year Average	48.2	49.7	50.0	49.2	49.9	50.6	51.6	51.0

PREVIOUS COACHELLA VALLEY SIPS AND PLANS

Since adoption of the 1990 CVSIP, the local Coachella Valley jurisdictions, CVAG, and the AQMD have worked closely to implement the various 1990 CVSIP control measures. This team approach has resulted in what was the most comprehensive dust control program in the nation at that time. The 1996 CVSIP describes the implementation status of these control measures in detail. In the 1994 CVSIP, additional BACM measures were identified. However, by 1996, the Coachella Valley had achieved the PM10 NAAQS and the AQMD requested its redesignation to attainment. At that time, the 1994 CVSIP BACM measures were incorporated as contingency measures in the 1996 CV Plan. In response to elevated PM10 levels from 1999 through 2001, the AQMD prepared and adopted the 2002 CVSIP, which included a most stringent measures analysis and enhanced control strategy. The 2002 CVSIP demonstrated attainment of the federal PM10 standards by 2006. The 2002 CVSIP described the previous dust control measures, including the original local dust control ordinances and AQMD Rules 403 and 403.1, all of which were adopted in 1992 and 1993 and have been SIP-approved by U.S. EPA, and the Clean Streets Management Program.

LATEST DUST CONTROL EFFORTS

The 2002 CVSIP summarizes the dust control efforts that arose in response to significant dust control problems and nuisance situations at large construction sites in Spring 1999 and the rise in local PM10 levels above the annual average standard from 1999 through 2001. These programs, that are described in the 2002 CVSIP and summarized below, are continuing, including the expedited implementation of CMAQ-funded PM10 control projects, CVAG- and AQMD- sponsored Compliance Promotion Classes, “dust czars” for each jurisdiction, and a full-time AQMD inspector to coordinate AQMD and local enforcement activities.

In May 2001, AQMD assigned a full-time inspector to the Coachella Valley to improve outreach and compliance with existing dust control regulations. This was in addition to AQMD inspectors who had been responding to potential AQMD rule

violations. In addition, each Coachella Valley jurisdiction has assigned a "dust czar" to coordinate dust control for that jurisdiction (e.g. dust plan review, ordinance enforcement, public and industry outreach, AQMD liaison). All "dust czars" have taken the Compliance Promotion Class and have worked with the AQMD inspector to address dust sources within their individual jurisdictions.

On October 4, 2002, the Board approved the FY 2002-03 AB 2766 MSRC Discretionary Fund Work Program in Concept totaling $14.95 million. This included the Coachella Valley PM10 Reduction Program; the total amount of Discretionary Funds allocated to this category was $1,000,000. The Coachella Valley Program offers to co-fund qualifying particulate matter reduction projects, focusing on the early implementation of Most Stringent Measures (MSMs) as defined by the South Coast AQMD in the new Coachella Valley State Implementation Plan. The goal of the MSRC Program is to assist CVAG jurisdictions in effectively and expeditiously implementing MSMs prior to the imposition of mandatory PM10 Reduction Rules by the AQMD. The MSRC Program provides qualifying CMAQ projects an 11.47% match against federal CMAQ (TEA-21) funds, a 75% match against AB 2766 Subvention Funds, and a 50% match when other sources of funds are applied. The solicitation mechanism is a Program Announcement and Application, with a proposal receipt period beginning on November 5, 2002 and ending on April 8, 2003. The funding was available on a first-come, first-serve basis and twelve projects were approved for a total of $1,000,000. Leveraged with CMAQ, AB2766 subvention, and other funds, this program resulted in over $5,000,000 of PM10 mitigation and control projects being initiated in the Coachella Valley. Details can be found in the 2003 February and March AQMD Governing Board agendas.

The Coachella Valley Air Quality Ad Hoc Task Force (CV Task Force), sponsored by CVAG, is assisting CVAG and the AQMD in implementing the 2002 CVSIP. The CV Task Force includes mayors and city council members of all Coachella Valley cities, a County Supervisor from Riverside County, tribal chairs or vice-chairs from all local Indian tribes, CVAG Energy and Environmental Resources subcommittee members (city managers), the Coachella Valley Economic Partnership, and representatives from the local farm bureau, building industry association, developers, Caltrans, as well as staff from AQMD, CARB, and U.S. EPA. Other interested stakeholders, including SunLine Transit Agency, Coachella Valley Water District, Southern California Gas Company, the Building Industry Association (BIA), local developers, the Construction Industry Air Quality Coalition (CIAQC), local farmers, and the "dust czars," have also participated. The CV Task Force met on March 12, 2003, to review the initial drafts of the model ordinance, dust control handbook, and memorandum of understanding, which taken together, will implement the local government portion of the 2002 CVSIP control measures.

CHAPTER 2

EMISSIONS INVENTORY UPDATE

INTRODUCTION

This chapter discusses the following:

- ✓ Revisions to the previous emission inventory; and
- ✓ The 2003 CVSIP emissions inventory;
- ✓ Transportation conformity PM10 emission budget; and
- ✓ Milestone year (2003) emission target and transportation conformity budget.

REVISIONS TO THE 2002 CVSIP EMISSIONS INVENTORY

The 2002 CVSIP inventory was extensively based on the 1996 CV Plan inventory assumptions, except that construction emissions for 2000 were updated using the latest Construction Industry Research Board (CIRB) activity data. The emissions inventory for the 2003 CVSIP has been comprehensively updated, based on the latest emission factors, activity levels, mobile source emission models, and population growth, socioeconomic and transportation system estimates. A summary of the latest inventory methodologies, including those that have been updated or improved, can be found in Chapter 1 of the 2003 AQMP, Appendix III – Base and Future Year Inventories. Specific Coachella Valley inventory revisions are described below.

Mobile Sources

CARB, U.S. EPA and SCAG have revised the mobile source emissions model EMFAC and the related planning assumptions to improve the mobile source emissions inventory. CARB's EMFAC7G model was used in the 1996 CV Plan and the 2002 CVSIP. EMFAC2002 model is used in the 2003 AQMP and 2003 CVSIP. Between these two models, CARB released two other EMFAC models; they are EMFAC2001 version 2.02 and EMFAC2001 version 2.08. Major improvements from EMFAC7G to EMFAC2002 include updated unregistered vehicle estimates; updated Inspection/Maintenance benefit estimates; updated idle emission rates; extended idle for heavy-duty trucks; adding EVII and Tier II programs; and adding air conditioning correction factors, as well as updating all the existing factors from the most current adopted rules and available data and other technical items (see Chapter 1 of the 2003 AQMP, Appendix III – Base and Future Year Inventories). A detailed description of EMFAC2002 is available at CARB's website. (www.arb.ca.gov/msei/msei.htm) EMFAC2002 results indicate that EMFAC7G underestimated the emissions. It should be noted that in addition to methodology improvements, EMFAC2002 also incorporates rules adopted since the release of EMFAC7G.

Stationary Sources

The stationary source inventory decreased for all criteria pollutants due to the effect of rules adopted by SCAQMD and CARB as well as due to the improved or updated area source methodologies used for estimating emissions. The 2002 CVSIP were based on a 1993 base year, as was done in 1996 CV Plan. Subsequent to the approval of the 1996 CV Plan (and 1997 AQMP), CARB released updated emission factors for several fugitive dust sources. These emission factors and methodologies are available at CARB's web site (www.arb.ca.gov/emisinv/areasrc/index7.htm). The 2003 CVSIP incorporates those updated emission factors and / or recent activity data for source categories such as entrained paved and unpaved road dust, construction, windblown dust, and farming operations. As in the 2003 AQMP, these emission estimates use 1997 as the base year. The greatest change was in the estimation of windblown

agricultural dust; new emission factors dramatically reduced annual emission estimates. [Peak 24-hour windblown dust estimates have not changed and are the overwhelming contributor to peak 24-hour PM10 days. The estimates assume 60 mph and higher winds and are calculated as in the 2002 CVSIP (see page 3-1).] Better road construction activity data have become available with the release of SCAG's 2001 RTP, resulting in revised road construction emissions. Entrained unpaved paved road dust emission estimates are smaller in the 2003 CVSIP due to lower CARB emission factor. Entrained road dust remains the major source of fugitive primary PM10 emissions. Overall emission estimates are significantly lower for the 2003 CVSIP, mostly due to the sharply lower estimate of annual windblown dust emissions. Table 2-1 indicates the changes to the PM10 fugitive dust inventories.

Table 2-1
Comparison of Year 2000 Fugitive Dust PM10 Emissions (Tons/Day)

Source Category	2002 CVSIP*	Draft 2003 CVSIP*
Paved Road Dust	7.29	6.89
Unpaved Road Dust	5.44	4.23
Construction	7.42	5.46
Farming Operations	1.06	1.23
Windblown	31.31	9.31
Total	**52.52**	**27.12**

*1993 base year inventory used in 1997 AQMP
** 1997 base year inventory with updated methodologies used in 2003 AQMP

2003 CVSIP EMISSIONS INVENTORY

As indicated in Table 2-3, about 30.5 tons of PM10 were emitted on an average day in the Coachella Valley in 2000. [The1995 baseline inventory is used in the modeling analysis and is described in Table 2-2. Note the increase in year 2000 construction emissions from 1995. Large–scale construction increased by a factor of thirty between those years (see 2002 CVSIP, page 3-4.)] Approximately 29.1 tons/day (~ 95% of the total) were fugitive dust emissions from wind erosion of disturbed sources, entrained road dust, construction and demolition activity, and farming operations. About 0.8 tons/day of primary PM10 emissions are emitted by mobile sources in the study area, with about half from on-road sources and half from off-road sources. However, mobile sources contribute to PM10 exceedances through entrained paved road dust (6.9 tons per day) and entrained unpaved road dust (4.2 tons per day). Emission estimates for peak 24-hour PM10 days reflect large amounts of windblown dust entrained by high winds (~60 mph). Existing control programs are incorporated into the 2000 base year inventory, including the Clean Streets Management Program. The control efficiency of previous control programs has been described and documented in the 1990 CVSIP, the 1994 CVSIP, the 1996 CV Plan, and the 2002 CVSIP, as well as staff reports for the AQMD's fugitive dust rules.

Future Year Emissions

Future year emissions inventories were developed for 2003 and 2006 (see Tables 2-4 and 2-5, respectively), based on a specific set of projected growth rates for population, industry, and motor vehicle activity for the Coachella Valley, which are consistent with the methodologies and data used in the 2003 AQMP.

TABLE 2-2

1995 PM10 Annual Average Emission Inventory by Major Source Category (tons/day)

Source Category	Ann. Avg.	Max. 24-hour
STATIONARY SOURCES		
Point Sources		
Other Mfg./Industrial	0.02	0.02
Service and Commercial	0.01	0.01
Mineral Processes	0.02	0.02
Wood & Paper	0.01	0.01
Total Point Sources	**0.06**	**0.06**
Area Sources		
Residential Fuel Combustion	0.11	0.11
Cooking	0.25	0.25
Farming Operation	1.31	1.31
Construction & Demolition	1.34	1.34
Entrained Road Dust/Paved	6.95	6.95
Entrained Road Dust/Unpaved	4.23	4.23
Fires	0.01	0.01
Waste Burning and Disposal	0.06	0.06
Windblown Dust	9.34	2285.50
Total Area Sources	**23.60**	**2299.76**
TOTAL STATIONARY SOURCES	**23.66**	**2299.82**
MOBILE SOURCES		
On-Road Vehicles		
Light-Duty Passenger	0.13	0.13
Lt.- Med.- Trucks	0.09	0.09
Heavy-Duty Gas Trucks	0.00	0.00
Heavy-Duty Diesel Trucks	0.16	0.16
School Buses	0.00	0.00
Total On-Road Vehicles	**0.38**	**0.38**
Other Mobile		
Aircraft	0.00	0.00
Trains	0.04	0.04
Recreational Boats	0.03	0.03
Off-Road Equipment	0.23	0.23
Farm Equipment	0.07	0.07
Truck Stops	0.01	0.01
Total Other Mobile	**0.38**	**0.38**
TOTAL MOBILE SOURCES	**0.76**	**0.76**
TOTAL ALL SOURCES	**24.42**	**2300.58**

TABLE 2-3

2000 PM10 Emission Inventory by Major Source Category (tons/day)

Source Category	Ann. Avg.	Max. 24-hour
STATIONARY SOURCES		
Point Sources		
Other Mfg./Industrial	0.04	0.04
Service and Commercial	0.00	0.00
Mineral Processes	0.02	0.02
Wood & Paper	0.01	0.01
Total Point Sources	**0.07**	**0.07**
Area Sources		
Residential Fuel Combustion	0.12	0.12
Cooking	0.35	0.35
Farming Operation	1.23	1.23
Construction & Demolition	7.42	7.42
Entrained Road Dust/Paved	6.89	5.86
Entrained Road Dust/Unpaved	4.23	4.23
Fires	0.01	0.01
Waste Burning and Disposal	0.05	0.05
Windblown Dust	9.31	2285.50
Total Area Sources	**29.61**	**2305.80**
TOTAL STATIONARY SOURCES	**29.68**	**2305.87**
MOBILE SOURCES		
On-Road Vehicles		
Light-Duty Passenger	0.16	0.16
Lt.- Med.- Trucks	0.12	0.12
Heavy-Duty Gas Trucks	0.00	0.00
Heavy-Duty Diesel Trucks	0.10	0.10
School Buses	0.00	0.00
Total On-Road Vehicles	**0.38**	**0.38**
Other Mobile		
Aircraft	0.00	0.00
Trains	0.04	0.04
Recreational Boats	0.03	0.03
Off-Road Equipment	0.25	0.25
Farm Equipment	0.07	0.07
Truck Stops	0.01	0.01
Total Other Mobile	**0.40**	**0.40**
TOTAL MOBILE SOURCES	**0.78**	**0.78**
TOTAL ALL SOURCES	**30.46**	**2306.65**

TABLE 2-4

2003 PM10 Emission Inventory by Major Source Category (tons/day)

Source Category	Ann. Avg.	Max. 24-hour
STATIONARY SOURCES		
Point Sources		
Other Mfg./Industrial	0.04	0.04
Service and Commercial	0.00	0.00
Mineral Processes	0.02	0.02
Wood & Paper	0.01	0.01
Total Point Sources	**0.07**	**0.07**
Area Sources		
Residential Fuel Combustion	0.13	0.13
Cooking	0.35	0.35
Farming Operation	1.18	1.18
Construction & Demolition	8.04	8.04
Entrained Road Dust/Paved	7.12	7.12
Entrained Road Dust/Unpaved	4.23	4.23
Fires	0.01	0.01
Waste Burning and Disposal	0.05	0.05
Windblown Dust	9.30	2285.50
Total Area Sources	**30.41**	**2306.61**
TOTAL STATIONARY SOURCES	**30.48**	**2306.68**
MOBILE SOURCES		
On-Road Vehicles		
Light-Duty Passenger	0.16	0.16
Lt.- Med.- Trucks	0.12	0.12
Heavy-Duty Gas Trucks	0.00	0.00
Heavy-Duty Diesel Trucks	0.11	0.11
School Buses	0.00	0.00
Total On-Road Vehicles	**0.39**	**0.39**
Other Mobile		
Aircraft	0.00	0.00
Trains	0.04	0.04
Recreational Boats	0.04	0.04
Off-Road Equipment	0.24	0.24
Farm Equipment	0.06	0.06
Truck Stops	0.01	0.01
Total Other Mobile	**0.39**	**0.39**
TOTAL MOBILE SOURCES	**0.78**	**0.78**
TOTAL ALL SOURCES	**31.26**	**2307.46**

TABLE 2-5

2006 PM10 Emission Inventory by Major Source Category (tons/day)

Source Category	Ann. Avg.	Max. 24-hour
STATIONARY SOURCES		
Point Sources		
Other Mfg./Industrial	0.03	0.03
Service and Commercial	0.00	0.00
Mineral Processes	0.02	0.02
Wood & Paper	0.01	0.01
Total Point Sources	**0.06**	**0.06**
Area Sources		
Residential Fuel Combustion	0.14	0.14
Cooking	0.35	0.35
Farming Operation	1.14	1.14
Construction & Demolition	8.67	8.67
Entrained Road Dust/Paved	7.34	7.34
Entrained Road Dust/Unpaved	4.23	4.23
Fires	0.01	0.01
Waste Burning and Disposal	0.05	0.05
Windblown Dust	9.28	2285.50
Total Area Sources	**31.21**	**2307.43**
TOTAL STATIONARY SOURCES	**31.27**	**2307.49**
MOBILE SOURCES		
On-Road Vehicles		
Light-Duty Passenger	0.17	0.17
Lt.- Med.- Trucks	0.13	0.13
Heavy-Duty Gas Trucks	0.00	0.00
Heavy-Duty Diesel Trucks	0.11	0.11
School Buses	0.01	0.01
Total On-Road Vehicles	**0.42**	**0.42**
Other Mobile		
Aircraft	0.00	0.00
Trains	0.04	0.04
Recreational Boats	0.05	0.05
Off-Road Equipment	0.22	0.22
Farm Equipment	0.05	0.05
Truck Stops	0.01	0.01
Total Other Mobile	**0.37**	**0.37**
TOTAL MOBILE SOURCES	**0.79**	**0.79**
TOTAL ALL SOURCES	**31.97**	**2308.28**

Future Year Controlled Emissions

A future year controlled emissions inventory was developed based on implementation of the control measures described in Chapter 5 of the 2002 CVSIP. Table 2-6 updates the control measures' emission reduction estimates. The emission reductions are estimated at 3.0 tons/day, compared to 3.3 tons/day estimated in the 2002 CVSIP. The change is solely due to inventory estimate changes; the control efficiencies of each control measure are the same as in the 2002 CVSIP. The control strategy calls for adoption of the control measures as expeditiously as possible, based on the schedule in Table 2-6.

Table 2-6
Summary of 2002 CVSIP Control Measure Implementation

Control Measure	Implementation Schedule	2006 Estimated Emission Reductions
CV BCM 1 (Construction)	Begin no later than 10/03 (local) or 1/04 (AQMD)	1.96 tons/day
CV BCM 2 (Disturbed Lands)	Begin no later than 10/03	TBD after survey
CV BCM 3 (Unpaved roads / lots)	Begin no later than 10/03, phased implementation	0.55 tons/day
CV BCM 4 (Paved Roads)	Begin no later than 10/03 (local) or 1/04 (AQMD)	0.44 tons/day
CV BCM 5 (Agriculture)	Begin no later than 1/04 (AQMD)	0.02 tons/day (farming operations)
CV CTY 1 (Overseeding)	In event of RFP failure or non-attainment	TBD (implemented voluntarily now)
TOTAL		**2.97 tons/day**

The remaining emissions in 2006 after the implementation of future controls are presented in Table 2-7. AQMD is still committed to expeditiously adopt and implement the control measures, no later than the schedule specified in Chapter 5 of the 2002 CVSIP.

The 2003 AQMP outlines an overall control strategy that will ultimately achieve ambient air quality standards in the South Coast Air Basin. The impact of these controls will reduce the amount of transported particulates into the Coachella Valley from both direct PM10 emissions and from secondary particulate resulting from Basin precursor emissions such as VOCs, NOx, SOx, and ammonia. A full discussion of the South Coast Air Basin emissions can be found in the 2003 AQMP (Chapter 3 and Appendix III). As seen in attainment demonstration in Chapter 3, South Coast Air Basin controls reduce the level of transported PM10 to the Coachella Valley in future years in the control scenarios.

TABLE 2-7

2006 PM10 Emission Inventory with 2002 CVSIP Controls (tons/day)

Source Category	Ann. Avg.	Max. 24-hour
STATIONARY SOURCES		
Point Sources		
Other Mfg./Industrial	0.03	0.03
Service and Commercial	0.00	0.00
Mineral Processes	0.02	0.02
Wood & Paper	0.01	0.01
Total Point Sources	**0.06**	**0.06**
Area Sources		
Residential Fuel Combustion	0.14	0.14
Cooking	0.35	0.35
Farming Operation	1.12	1.12
Construction & Demolition	7.81	7.81
Entrained Road Dust/Paved	5.80	5.80
Entrained Road Dust/Unpaved	3.68	3.68
Fires	0.01	0.01
Waste Burning and Disposal	0.05	0.05
Windblown Dust	9.28	2285.50
Total Area Sources	**28.24**	**2304.46**
TOTAL STATIONARY SOURCES	**28.30**	**2304.52**
MOBILE SOURCES		
On-Road Vehicles		
Light-Duty Passenger	0.17	0.17
Lt.- Med.- Trucks	0.13	0.13
Heavy-Duty Gas Trucks	0.00	0.00
Heavy-Duty Diesel Trucks	0.11	0.11
School Buses	0.01	0.01
Total On-Road Vehicles	**0.42**	**0.42**
Other Mobile		
Aircraft	0.00	0.00
Trains	0.04	0.04
Recreational Boats	0.05	0.05
Off-Road Equipment	0.22	0.22
Farm Equipment	0.05	0.05
Truck Stops	0.01	0.01
Total Other Mobile	**0.37**	**0.38**
TOTAL MOBILE SOURCES	**0.79**	**0.79**
TOTAL ALL SOURCES	**29.09**	**2305.31**

TRANSPORTATION CONFORMITY EMISSION BUDGET FOR COACHELLA VALLEY

As described earlier in this chapter, the mobile source portion of the draft 2003 CVSIP emissions inventory is based on EMFAC2002. Road construction emissions are based on SCAG's 2001 Regional Transportation Plan (RTP). For on-road mobile sources, Section 176(c) of the CAA requires that transportation plans and programs do not cause or contribute to any new violation of a standard, increase the frequency or severity of any existing violation, or delay the timely attainment of the air quality standards. In other words, on-road mobile sources must "conform" to the attainment demonstration contained in the SIP.

U.S. EPA's transportation conformity rule, found in 40 CFR parts 51 and 93, details the requirements for establishing motor vehicle emissions budgets in SIPs for the purpose of ensuring the conformity of transportation plans and programs with the SIP attainment demonstration. The on-road motor vehicle emissions budgets act as a "ceiling" for future on-road mobile source emissions. Exceedances of the budget indicate an inconsistency with the SIP, and could jeopardize the flow of federal funds for transportation improvements in the region. As required by the CAA, a comparison of regional on-road mobile source emissions to these budgets will occur during the periodic updates of regional transportation plans and programs.

The on-road motor vehicle emissions estimates for the 2003 CVSIP were analyzed using the CARB's EMFAC2002 on-road mobile source emission factor model in conjunction with the most recent motor vehicle activity data from SCAG. These budgets reflect existing control programs and new commitments for technology and transportation control measures.

AQMD staff conducted the following analysis for determining conformity budgets. The 2006 controlled emissions, which are based on expeditious implementation of the 2002 CVSIP, result in modeled levels of 49.6 ug/m^3 (annual) and 141.6 ug/m^3 (24-hour average). Total transportation emissions for this case are 10.0 tpd (0.42 tpd on-road motor vehicles, 5.80 tpd reentrained paved road dust, 3.68 tpd reentrained unpaved road dust, and 0.06 tpd road construction emissions). Since modeled attainment levels can be 50.4 ug/m^3 for the annual average, greater emission levels could still demonstrate attainment (see Table 2-8). In the conformity scenario, the emissions from VMT-related categories (on-road motor vehicle sources and entrained local and collector paved road dust) can be increased to test the maximum emissions allowed while meeting the federal PM10 standard of 50.4 ug/m^3. The scenario demonstrates attainment of the federal standards (see Table 3-3). In addition, this 2003 CVSIP sets up a budget trading mechanism (see below), that would allow non-transportation emissions to be traded for transportation emissions. Therefore, Table 2-8 establishes the PM10 budget for 2006 and post-attainment years for transportation conformity analyses.

TABLE 2-8

Transportation Conformity PM10 Emission Budget for 2006
and Post-Attainment Years (tons/day)

	Emissions (tons/day)
Motor Vehicles	0.42
Reentrained paved road dust	5.80
Reentrained unpaved road dust	3.68
Road construction	0.06
Additional margin (based on modeling)	0.97
Total (Transportation Conformity PM10 Emission Budget)	**10.9**
Non-Transportation Emissions*	**19.1****

*If emissions are reduced below these levels, the increment can be traded to meet the direct PM10 transportation conformity budget, based on a different combination of PM10 and its precursors to continue showing attainment (see below)
** Off-road emissions are 0.37 tpd.

Budget Trading Mechanism

The PM10 transportation conformity emissions budget PM10 is provided here for the attainment year 2006. However, since transportation analyses are needed beyond the attainment dates, the 2006 transportation budget also serves as the budget for future years (e.g., 2010, 2020 and 2030). There is projected long-term growth in direct PM10 emissions due to increased vehicle travel on paved roads.

1. To address this increase in primary PM10 emissions from travel while continuing to provide for attainment after 2006, this plan establishes a PM10 transportation conformity budget trading mechanism as authorized under Section 93.124 (C) of the federal conformity rule. Section 93.124 (C) states that "A conformity demonstration shall not trade emission among budgets…. , unless the implementation plan establishes appropriate mechanisms for such trades." The purpose of trading is to allow a different combination of PM10 emissions from stationary and mobile sources adequate to maintain the attainment demonstration for future years beyond the attainment date. Thus, the benefits of adopted measures or enforceable commitments for any sources that reduce emissions of PM10 below the PM10 attainment demonstration targets for 2006 (as shown in Table 2-8) are available to trade or compensate for the travel-based direct PM10 increases in later year conformity analyses.

   – This PM10 trading mechanism will only be used for conformity analyses after the attainment date (i.e., 2006).
   – This mechanism will allow primary PM10 reductions from any source beyond those needed for attainment to be traded for motor vehicle and related primary PM10 emissions included in the transportation conformity budget, on a 1:1 basis.

For each conformity analysis year that relies on trading, SCAG's draft conformity analysis circulated for interagency consultation and public review will clearly document the projected emissions for PM10 from all sources (based on adopted measures and enforceable commitments), the excess primary PM10 emissions from travel, the reductions in each pollutant beyond the attainment target to be used for trading, the source of the emission reductions and mechanism to achieve them, and the trading ratio derived from the attainment demonstration.

2. The amount of emissions to be traded identified through the transportation conformity analyses are beyond those needed for the 2006 attainment demonstration; therefore, it will be reassessed in each subsequent SIP revision based on the most recent technical information.

3. The description herein provides the basic framework of budget trading allowed under the federal conformity rule. The District, SCAG or CARB may clarify this framework, if necessary, during the public review process on the plan at the local, State, and federal level.

INTERIM MILESTONE YEAR

Appendix E of the 2002 CVSIP provided the emission reductions, the interim milestone year emission target, and emission budgets (for transportation conformity) at the end of the interim milestone year of 2003. It was approved by the AQMD Governing Board as an addendum to the approved 2002 CVSIP at its September 13, 2002 meeting. This section updates and revises the interim milestone information presented in Appendix E of the 2002 CVSIP. The 2003 baseline inventory is 31.26 tons/day (see Table 2-4). The full implementation of CV BCM-1 "Construction and Earth-Movement Activities" would result in 1.87 tons/day of emissions reductions. [Additional on-site construction dust control will reduce emissions in the construction category (0.80 tons/day) and enhanced track-out controls will reduce entrained paved road dust (1.07 tons/day).] However, since the adoption date of the local ordinances can be as late as October 2003, and the control measure adoption by the AQMD may not occur until the end of the year, only 50% combined ordinance/rule penetration is assumed by the end of 2003 for this reasonable further progress interim milestone assessment. As noted in Chapter 3 of the 2002 CVSIP, no annual average emission reductions can be assumed for 2003, but for the purposes of a reasonable further progress determination in the interim milestone year, 0.94 tons/day of reductions are anticipated at the end of 2003 as a result of implementation of CV BCM–1 with a 50% combined ordinance/rule penetration by that time.

Interim Milestone Target

The interim milestone year emission target for the Coachella Valley is based on expected emission reductions by the end of 2003. The 2002 CVSIP interim milestone year target is shown in Table 2-9. Emissions at the end of 2003 are less than the 2000 baseline emissions and demonstrate progress toward the attainment levels in 2006.

TABLE 2-9
PM10 Interim Milestone Year Target
(Average Day – Tons per Day)

Pollutant	2000(Baseline)	End of 2003*
PM10	30.46	30.32*

* Represents remaining emissions at the end of the year 2003 with implementation of CV BCM-1 and 50% combined ordinance/rule penetration by that time.

Transportation Conformity Emission Budgets for the Interim Milestone Year
40 CFR Part 93 requires that emission budgets for criteria air pollutants be specified in the SIP for milestone years. Table 2-10 provides the emission budgets after implementation of the 2002 CVSIP controls at the end of the interim milestone year (2003), consistent with the applicable requirements for reasonable further progress and attainment [40 CFR 93.118(e)(4)(iv)].

TABLE 2-10
Coachella Valley Emission Budgets for Transportation Conformity at the End of the 2003 Interim Milestone Year (tons/day)

	2003* PM10
Motor Vehicles	0.39
Reentrained paved road dust	7.64
Reentrained unpaved road dust	4.23
Road construction	0.06
Total	**12.3***

* Represents remaining emissions at the end of the year 2003 with implementation of CV BCM-1 and 50% combined ordinance/rule penetration by that time.

CHAPTER 3

ATTAINMENT DEMONSTRATION

INTRODUCTION

This chapter discusses the following:

- ✓ A summary of previous Coachella Valley PM10 modeling; and
- ✓ The modeling attainment demonstration.

PREVIOUS COACHELLA VALLEY PM10 MODELING

PM10 is a multicomponent pollutant including directly emitted primary particles and secondary particles resulting from the chemical transformations of the precursor emissions, such as hydrocarbons, nitrogen oxides, and sulfur oxides. The receptor model used for source apportionment in the Coachella Valley is known as the Chemical Mass Balance (CMB) Model. This U.S. EPA-approved method matches the measured chemical components of the PM10 samples with known chemical profiles, or signatures, of individual sources of PM10 particles. AQMD staff has collected a library of chemical profiles for more than 170 sources of PM10 emissions. AQMD staff also conducted special 1989 field studies to obtain the chemical speciation of ambient PM10 data at two receptor sites in the Coachella Valley: Palm Springs and Indio. The CMB receptor model has been applied to Coachella Valley PM10 concentrations measured at Palm Springs and Indio

Receptor modeling is a technique for determining the emission sources and the accompanying contributions to ambient PM10 air quality at specific receptor sites. Unlike complex mathematical models that require detailed simulations of physics, chemistry, meteorology, and other processes, receptor models are relatively simple statistical models that require only the availability of measurement data. Using receptor models, emission sources can be identified and quantified. With this information, future-year PM10 air quality can be estimated from the emission rollback methodology. The CMB analysis has been corroborated and augmented by a Principal Component Analysis.

As described and justified in previously submitted Coachella Valley SIPs and Plans, the modeling attainment demonstration for future years is based on the CMB model with rollback based on emission changes. The impact of transport is estimated using modeled PM10 levels in the Basin. The UAMAERO-LT, a simplified version of three-dimensional full photochemical/aerosol model UAM-AERO, was used in the 1997 AQMP for projecting annual average PM10 levels (including secondary particulates) in the Basin. The import of transported secondary particulates into the Coachella Valley from the Basin is estimated using UAMAERO-LT model results.

A more complete description of the source apportionment and modeling for Coachella Valley can be found in the approved 2002 CVSIP and the 1996 CV Plan (Chapter 4).

1995 Design Value

The design values for the 1996 CV Plan were selected from the 1995 ambient PM10 concentrations. The design values determined for this analysis were 49.5 $\mu g/m^3$ for an annual average and 133 $\mu g/m^3$ for the maximum 24-hour average PM10 concentration. As in previous plans, the year 1995 remains the modeling base year; however, 1989 PM10 data is the only chemically speciated PM10 data base available

at this time. Therefore, the 1995 source contributions were estimated using a proportionality approach that involves multiplying the fractions of the 1989 source contributions, as estimated by the CMB model, to the 1995 annual and 24-hour design values. (For more details, see the previous CVSIPs and plans.) As noted in the 2002 CVSIP, construction activity dramatically increased from 1999 on. The 1995 modeling base year contribution estimates, as well as the model results for the year 2000, are summarized in Table 3-1.

TABLE 3-1

Modeling Base-Year (1995) and Modeled Year 2000 PM10 Concentrations ($\mu g/m^3$) in the Coachella Valley

	1995 Base Year Design Values		**2000 Base Year Modeled Values**	
	Annual	**24-Hour**	**Annual**	**24-Hour**
Background	3.0	3.0	3.0	3.0
Transport	8.8	14.2	6.4	14.2
Mobile	1.3	3.6	1.3	3.7
Fugitive Dust:				
Construction	0.8	2.7	4.3	15.8
Paved Roads	4.4	15.8	4.3	15.7
Unpaved Roads	3.2	11.6	3.2	11.6
Agriculture	0.6	2.2	0.6	2.0
Windblown	18.3	67.7	18.3	66.7
Veg. Burning	5.9	10.4	4.9	8.7
Others	3.4	2.8	4.2	3.5
Totals	**49.7**	**134.0**	**50.5**	**144.9**

MODELING ATTAINMENT DEMONSTRATION

Future-year PM10 concentrations were estimated using a linear rollback approach for each primary source (such as mobile, fugitive dust, vegetative burning, and other sources). This involves multiplying the ratio of future year (2006) to base-year (1995) emissions to the 1995 base-year source contributions. In the linear rollback approach, it is presumed that future-year PM10 contributions from each source category are a linear function of emission rates for each source category.

Source contribution from the transport source category is the amount of PM10 transported from the Basin. For the purposes of this analysis, it was presumed that all secondary particles (such as ammonium, nitrate, and sulfate) were a result of transport from the Basin. In addition, a portion of the motor vehicle contribution was assumed to be a result of transport from the Basin. Since the emissions inventory indicates that motor vehicle sources in the Coachella Valley account for 3.1 percent of the PM10 emissions, the motor vehicle contribution above the 3.1 percent level is attributed to transport.

Future-year annual average transported secondary PM10 levels were estimated by an annual PM10 model (UAMAERO-LT). The transported motor vehicle source

contribution was estimated by a linear rollback using Basin motor vehicle PM10 emissions. Details of the UAMAERO-LT model and results can be found in Appendix V of the 2003 AQMP.

Since the UAMAERO-LT is an annual PM10 model, it cannot be used to estimate the future-year 24-hour average transported secondary PM10 concentrations. For the purposes of this analysis, a worst-case assumption that the future-year transported secondary PM10 concentration is the same as the 1995 base-year transported secondary PM10 concentration was made. (As noted above, transported PM10 will decrease due to the Basin control programs described in the 2003 AQMP.) Therefore, one would be confident that the 24-hour average standard will continue to be met in the future years, since the modeling assumes worst-case transport conditions.

Table 3-2 details the modeling results for 2006. With the implementation of the 2002 CVSIP control strategy (additional controls on construction/earthmoving, vacant lands, agriculture, paved road dust, and on-going control of the remaining unpaved surfaces), PM10 levels in 2006 are below the annual average PM10 standard. As in the 2002 CVSIP, modeling demonstrates attainment of the annual average PM10 standard by the year 2006.

TABLE 3-2

Base-Year and 2006 Modeled PM10 Concentrations ($\mu g/m^3$)in the Coachella Valley

	1995 Base Year Design Values		2006 PM10 Levels Baseline		2006 PM10 Levels With CVSIP Control	
	Annual	**24-Hour**	**Annual**	**24-Hour**	**Annual**	**24-Hour**
Background	3.0	3.0	3.0	3.0	3.0	3.0
Transport	8.8	14.2	6.4	14.2	6.3	14.2
Mobile	1.3	3.6	1.3	3.8	1.3	3.8
Fugitive Dust:						
Construction	0.8	2.7	5.0	18.4	4.5	16.6
Paved Roads	4.4	15.8	4.6	16.7	3.6	13.2
Unpaved Roads	3.2	11.6	3.2	11.6	2.8	10.1
Agriculture	0.6	2.2	0.5	1.9	0.5	1.9
Windblown	18.3	67.7	18.2	66.7	18.2	66.7
Veg. Burning	5.9	10.4	4.9	8.7	4.9	8.7
Others	3.4	2.8	4.4	3.6	4.4	3.6
Totals	**49.7**	**134.0**	**51.5**	**148.5**	**49.6**	**141.6**

CONFORMITY MODELING DEMONSTRATION

Table 3-3 details the modeling results for the conformity scenario. In the conformity scenario, VMT-related categories (on-road motor sources and entrained local and collector paved road dust) are increased as shown in Table 2-8 to reach a predicted concentration of 50.4 ug/m^3, the maximum level for attainment demonstration. The conformity scenario demonstrates attainment of the federal standards. See Chapter 2, "Transportation Conformity Emission Budgets for Coachella Valley for more details.

TABLE 3-3

Base-Year and 2006 Conformity Modeled PM10 Concentrations ($\mu g/m^3$)

	1995 Base Year Design Values		Conformity Scenario	
	Annual	**24-Hour**	**Annual**	**24-Hour**
Background	3.0	3.0	3.0	3.0
Transport	8.8	14.2	6.3	14.2
Mobile	1.3	3.6	1.6	4.8
Fugitive Dust:				
Construction	0.8	2.7	4.5	16.6
Paved Roads	4.4	15.8	4.1	14.9
Unpaved Roads	3.2	11.6	2.8	10.1
Agriculture	0.6	2.2	0.5	1.9
Windblown	18.3	67.7	18.2	66.7
Veg. Burning	5.9	10.4	4.9	8.7
Others	3.4	2.8	4.4	3.6
Totals	**49.7**	**134.0**	**50.4**	**144.3**

CHAPTER 4

2002 CVSIP IMPLEMENTATION SUMMARY AND 2003 CVSIP APRROVAL REQUEST

INTRODUCTION

This chapter contains the following:

- ✓ A summary of the implementation of the 2002 CVSIP to date; and
- ✓ The formal request for approval of 2003 CVSIP elements.

2002 CVSIP IMPLEMENTATION SUMMARY

As described in Chapter 1, the AQMD, CVAG, MSRC, individual Coachella Valley cities, and the County of Riverside have moved expeditiously to implement the 2002 CVSIP. A summary of the major implementation efforts includes:

- Continuation of monthly dust control classes by AQMD staff
- Early implementation of 2002 CVSIP control measure elements by local jurisdictions (e.g., construction signage requirements, track-out control improvements, increased enforcement activities, dust plan review using the criteria specified in the latest Coachella Valley Dust Control Plan Review Guidance)
- Release of preliminary draft Memorandum of Understanding among the local jurisdictions and AQMD concerning enforcement standards and protocols
- Expedited funding of CMAQ-funded PM10 mitigation and control projects, under the Clean Streets management Program
- MSRC adoption of a $1,000,000 Coachella Valley PM10 Reduction Program, as part of their FY2002-03 AB2766 Discretionary Fund Work Program
- Initiation of PM10 reduction projects totaling over $5,000,000 though the MSRC Coachella Valley PM10 Reduction Program (MSRC funds had to be matched by other funds (e.g., CMAQ) to be approved)
- Release of preliminary draft documents (e.g., model ordinance, CV Dust Control Handbook, Memorandum of Understanding) necessary for local jurisdiction implementation of the 2002 CVSIP control measures (CVBCM 1 though 5) at the March 12, 2003 Coachella Valley Ad Hoc Air Quality Task Force meeting

FORMAL REQUEST FOR APPROVAL OF 2003 CVSIP ELEMENTS

The 2003 CVSIP updates the 2002 CVSIP emissions inventories, transportation mobile source budgets, and attainment demonstration with the latest approved motor vehicle emissions model and planning assumptions. At the time of the 2002 CVSIP, CARB had not completed its update of its motor vehicle emissions model. As part of the June 21, 2002 adopting resolution, AQMD Governing Board directed the Executive Officer to update the 2002 CVSIP, including emissions budgets in 2003, using the latest approved motor vehicle emissions model and planning assumptions. It also requested that the U.S. EPA approve the emissions budgets based on the 2002 CVSIP for use only until the U.S. EPA finds adequate the revised budgets for the same years submitted as part of the 2003 revision to the 2002 CVSIP. Other elements of the 2002 CVSIP remain the same, e.g., the Most Stringent Measures analysis, the Coachella Valley control and contingency measures, and the Natural Event Action Plan.

AQMD requests approval of the following 2003 CVSIP elements by CARB and U.S. EPA, replacing the previously approved 2002 CVSIP elements:

- Base year (1995 and 2000) and future baseline (years 2003, 2006) PM10 emissions inventories (c.f. Tables 2-2 through 2-5)
- Emission reduction commitment for the attainment year 2006 (c.f. Table 2-6)
- Future controlled PM10 emissions inventories for 2006 (c.f. Table 2-7)
- Transportation conformity emission budget for 2006 and post-attainment years (c.f. Table 2-8)
- Interim milestone year targets and transportation conformity emission budget for the end of year 2003 (c.f. Tables 2-9 and 2-10, respectively)
- Attainment demonstration for 2006 (c.f. Table 3-2)
- Attainment modeling for conformity (c.f. Table 3-3)

AQMD requests that U.S. EPA terminate approval of the 2002 CVSIP budgets when they determine that the budgets submitted as part of this 2003 CVSIP are adequate, in accordance with U.S. EPA's rule published on 11/15/02 (67 FR 69139). AQMD is also requesting that U.S. EPA approve the budget trading mechanism in the 2003 CVSIP.